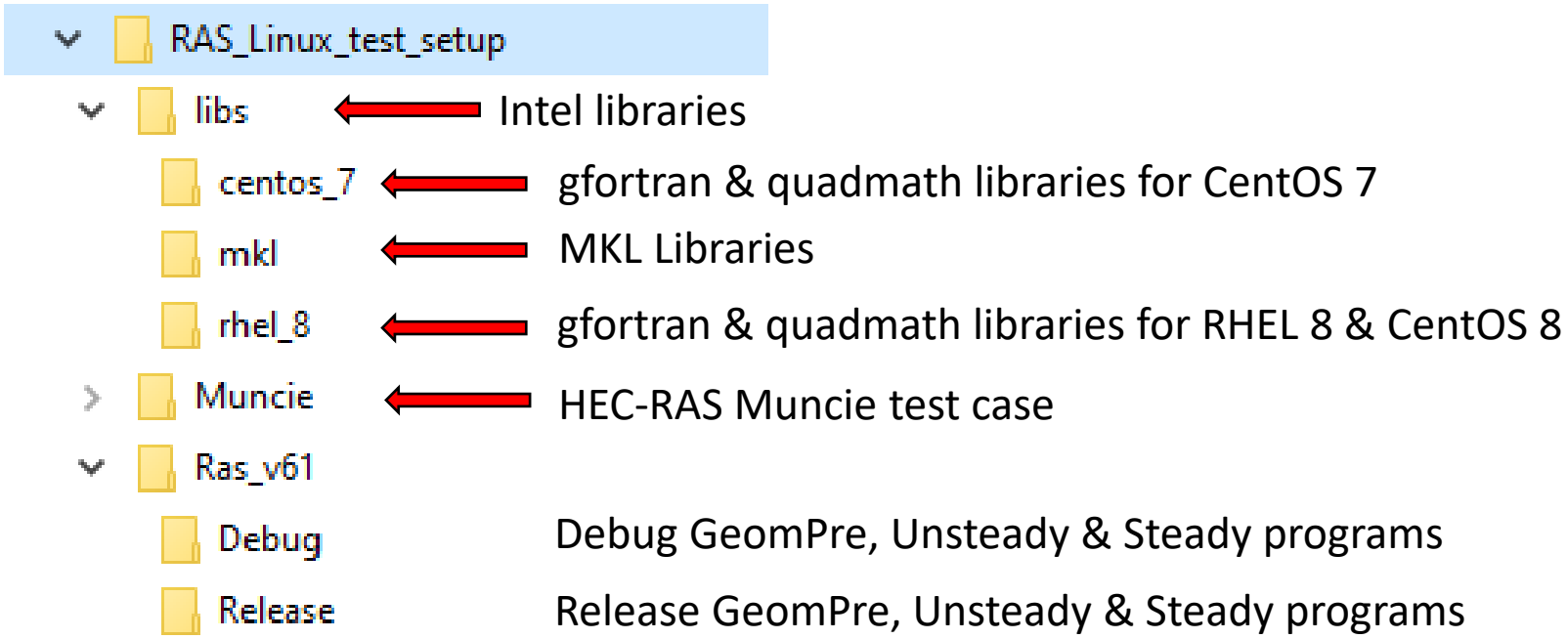
RAS Linux v.6.1 Tests

The RAS_Linux_test_setup.zip contains Linux executables and test case for:

- RasGeomPreprocess
- RasUnsteady
- RasSteady

Contents of the RAS_Linux_test_setup.zip



Library directories

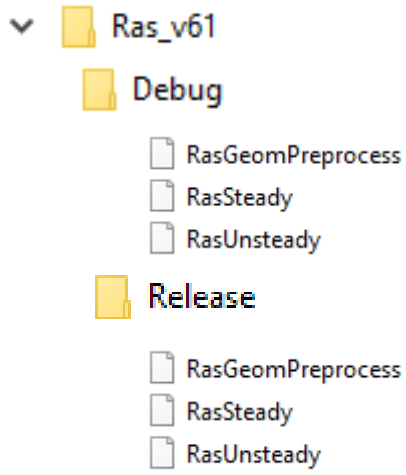
The Intel and MKL library directories are for the Intel oneAPI version of the Fortran compiler (v. 2021.4.0)

The mkl directory contains *.so files supporting a range of Intel/AMD processors and compiler settings (e.g. AVX, AVX2)

The centos_7 and rhel_8 provide the required libgfortran.so and libquadmath.so if these are not already installed on the system

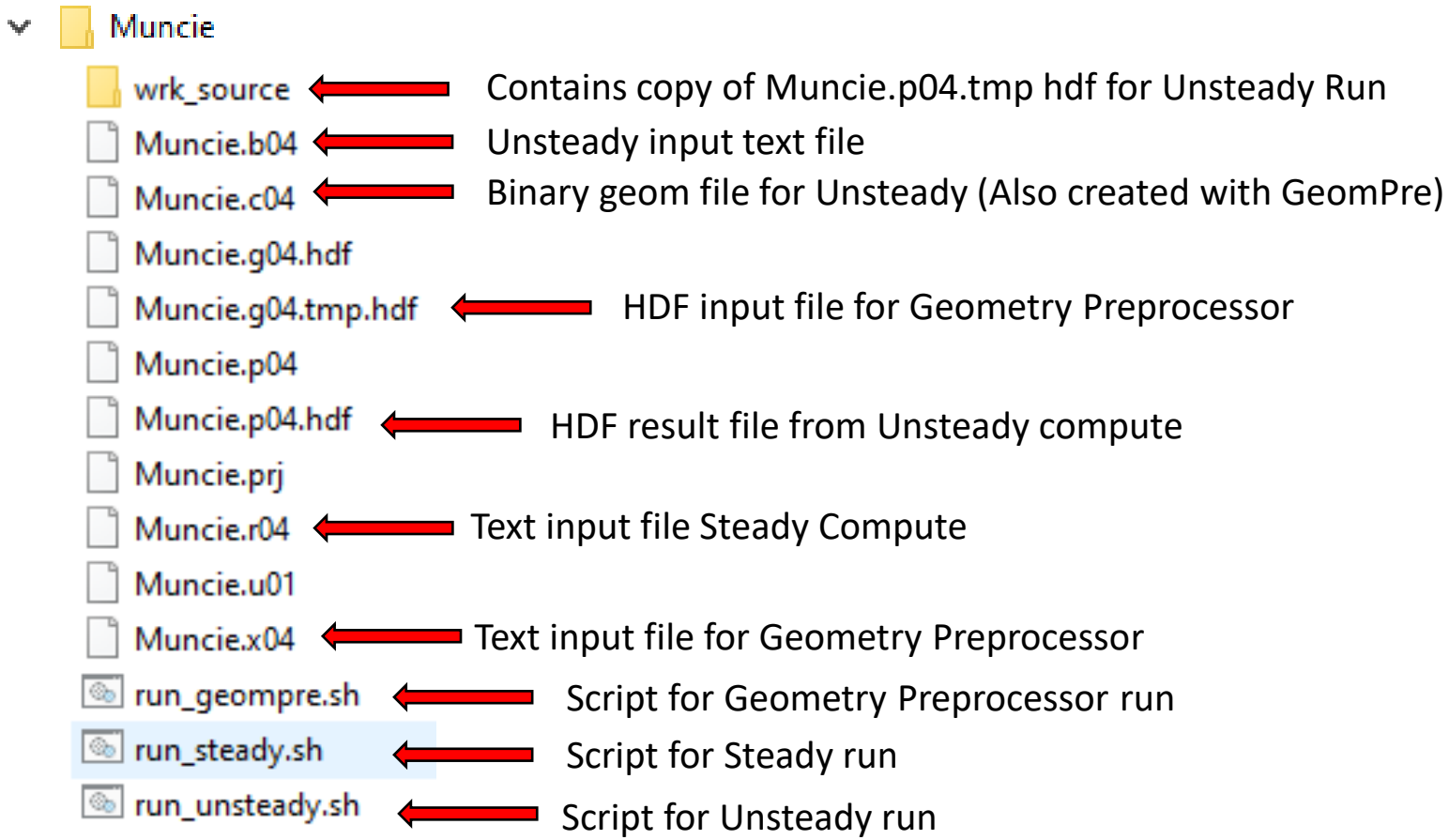
Ras_v61 directories

Contain Debug and Release versions of the HEC-RAS compute programs



Muncie Test

Files first generated from HEC-RAS GUI compute:
*.b04, *.g04.hdf, *.r04, *.x04 (*.c04 if GeomPreprocess skipped).
*.p04.tmp.hdf is from GUI run, with “Results” Data Group removed using python program.



GeomPreprocessor run

Run the “run_geompre.sh” from the Muncie directory

run_geompre.sh

```
1   #!/bin/sh
2
3   #RAS_LIB_PATH=../libs:../libs/mkl:../libs/centos_7
4   RAS_LIB_PATH=../libs:../libs/mkl:../libs/rhel_8
5
6   export LD_LIBRARY_PATH=$RAS_LIB_PATH:$LD_LIBRARY_PATH
7   echo $LD_LIBRARY_PATH
8
9   RAS_EXE_PATH=../Ras_v61/Release
10  export PATH=$RAS_EXE_PATH:$PATH
11  echo $PATH
12
13  # remove old results
14  rm Muncie.c04
15
16  RasGeomPreprocess Muncie.x04
17
18  cp Muncie.c04.tmp Muncie.c04
```

Set library paths for run

Set executable path for run

Run preprocessor programs

Rename output file for input to Unsteady run

RAS Unsteady run

Run the “run_unsteady.sh” from the Muncie directory

run_unsteady.sh

```
1  #!/bin/sh
2
3  #RAS_LIB_PATH=../libs:../libs/mkl:../libs/centos_7
4  RAS_LIB_PATH=../libs:../libs/mkl:../libs/rhel_8
5
6  export LD_LIBRARY_PATH=$RAS_LIB_PATH:$LD_LIBRARY_PATH
7  echo $LD_LIBRARY_PATH
8
9  #RAS_EXE_PATH=../Ras_v61/Debug
10 RAS_EXE_PATH=../Ras_v61/Release
11 export PATH=$RAS_EXE_PATH:$PATH
12 echo $PATH
13
14 #delete old p04 hdf results and copy in fixed up one
15 rm Muncie.p04.hdf
16 rm Muncie.p04.tmp.hdf
17 cp wrk_source/Muncie.p04.tmp.hdf .
18
19 # remove old results
20 rm Muncie.dss
21
22 RasUnsteady Muncie.c04 b04
23
24 mv Muncie.p04.tmp.hdf Muncie.p04.hdf
25
```

Set library paths for run

Set executable path for run

Remove any old p04.hdf files

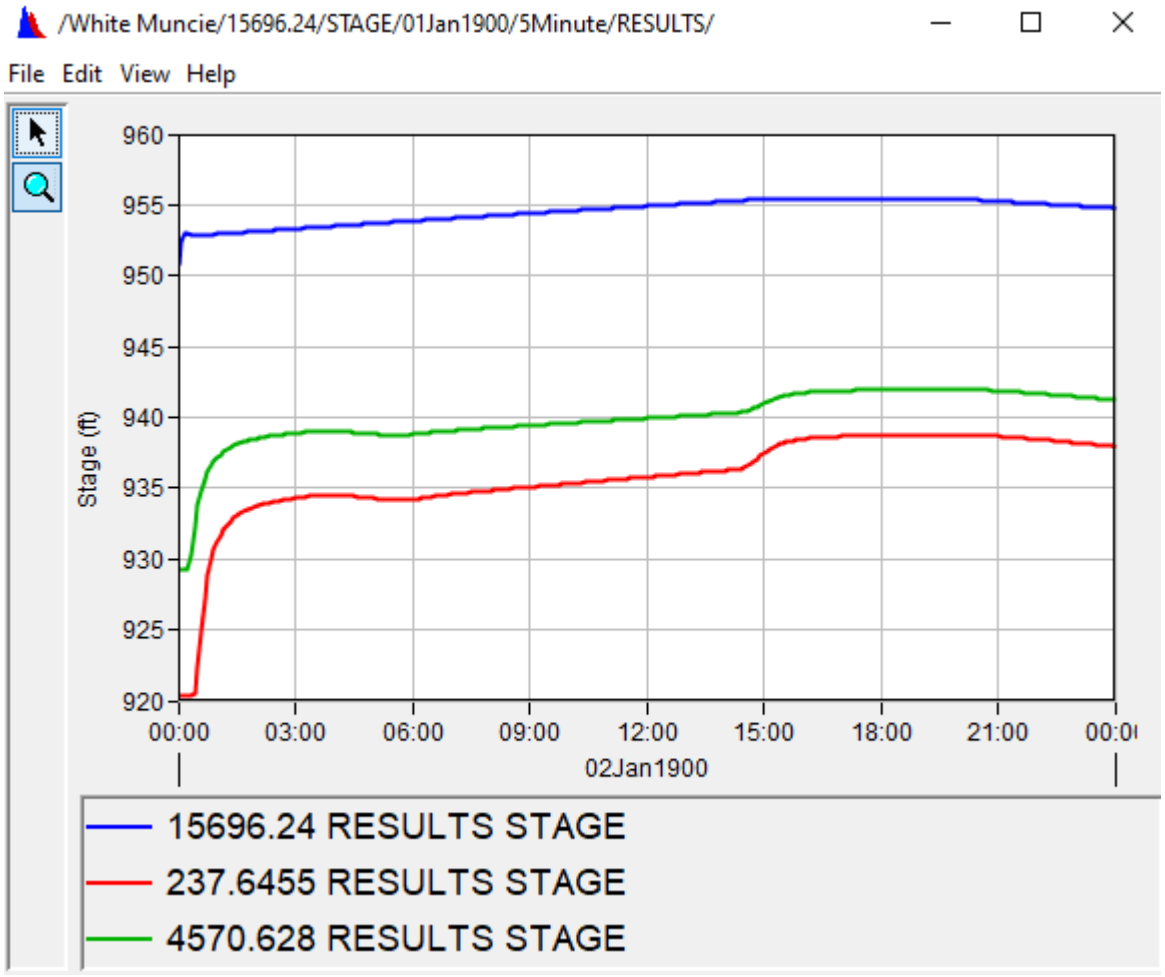
Copy p04.tmp.hdf file (Results Group removed)

Run Unsteady program

Rename p04.tmp.hdf file

RAS Unsteady run

If successful, produces Muncie.dss file and Muncie.p04.hdf file



RAS Steady run

Run the “run_steady.sh” from the Muncie directory

run_steady.sh

```
1   #!/bin/sh
2
3   #RAS_LIB_PATH=../libs:../libs/mkl:../libs/centos_7
4   RAS_LIB_PATH=../libs:../libs/mkl:../libs/rhel_8
5
6   export LD_LIBRARY_PATH=$RAS_LIB_PATH:$LD_LIBRARY_PATH
7   echo $LD_LIBRARY_PATH
8
9   #RAS_EXE_PATH=../Ras_v61/Debug
10  RAS_EXE_PATH=../Ras_v61/Release
11  export PATH=$RAS_EXE_PATH:$PATH
12  echo $PATH
13
14  # remove old results
15  rm Muncie.O04
16
17  RasSteady Muncie.r04
```

Set library paths for run

Set executable path for run

Remove old result

Run Steady program

If successful, produces Muncie.O04 file